

U.S. Application No. 09/719,365
Attorney Docket No.: Beiersdorf 692-KGB
6713-Dr. Wi-ka

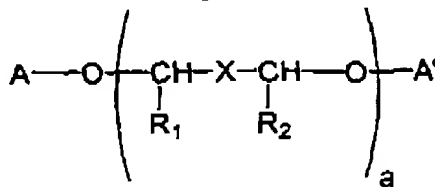
Filed: 12/11/2000

For: Flowable preparations of the W/O emulsion type with an increased water content

CLAIMS

1. Water-in-oil emulsions

- (a) with a viscosity of at most 5000 mPa s ✓
- (b) with a content of water and water-soluble substances totalling at least 75% by weight, and with a content of lipids, emulsifiers and lipophilic constituents totalling at most 15%, based in each case on the total weight of the preparations,
- (c) the oil phase of which comprises at least 75% of one or more substances chosen from the group of
 - nonpolar lipids which are liquid at room temperature and have a polarity of greater than 30 mN/m, and/or
 - silicones of any polaritythis weight proportion being based on the total weight of the oil phase,
- (d) comprising at least one interface-active substance chosen from the group of substances of the general formula (I)

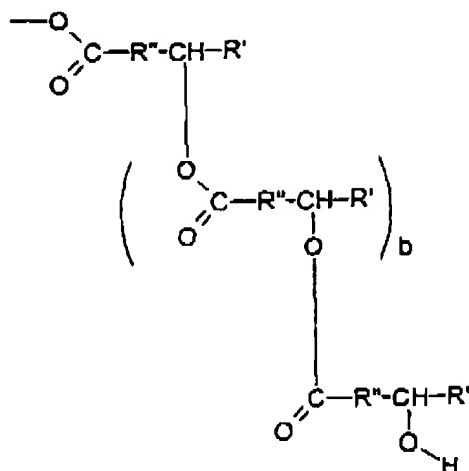


- where A and A' are identical or different organic radicals chosen from the group of branched and unbranched, saturated and unsaturated alkyl and acyl radicals and hydroxyacyl radicals having 10-30 carbon atoms, and also from the group of hydroxyacyl groups connected to one another via ester functions, in accordance with the scheme

No meth. copol.

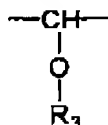
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09/719, 365



where R' is chosen from the group of branched and unbranched alkyl groups having 1 to 20 carbon atoms and R'' is chosen from the group of branched and unbranched alkylene groups having 1 to 20 carbon atoms, and b can assume numbers from 0 to 200,

- a is a number from 1 to 100, preferably 2 to 60, in particular 5 to 40,
- X is a single bond or the group



- R₁ and R₂ independently of one another are chosen from the group consisting of H and methyl,
 - R₃ is chosen from the group consisting of H, and the branched and unbranched, saturated and unsaturated alkyl and acyl radicals having 1 to 20 carbon atoms.
2. Emulsions according to Claim 1, characterized in that their content of water and water-soluble substances is greater than 80% by weight, in particular greater than 85% by weight, in each case based on the total weight of the preparations.
 3. Emulsions according to Claim 1, characterized in that the interface-active substance chosen is polyethylene glycol-30-dipolyhydroxystearate.

09/719, 365

4. Emulsions according to Claim 1, characterized in that the oil phase consists of at least 50% by weight, preferably of more than 75% by weight, of at least one substance chosen from the group Vaseline (petrolatum), paraffin oil and polyolefins, of the latter preferably: polydecenes.

09/963161
U.S. Application No. 09/693,161
Attorney Docket No.: Beiersdorf 745-KGB
6713-hf200-142

Filed: 9/26/2001

For: Preparations of the W/O emulsion type with an increased water content based on low-viscosity, readily spreadable lipid components, additionally comprising one or more alkylmethicone copolyols and/or alkyldimethicone copolyols

CLAIMS

1. A water-in-oil emulsion
 - (a) having a water phase content of at least 80% by weight, based on the total weight of the emulsion,
 - (b) in which the lipid phase comprises at least one lipid with a viscosity of less than 15 mPa s (at 25°C), which has a spreading value of at least 700 mm²/10 minutes (at 25°C),
 - (c) at least one interface-active substance chosen from the group of alkylmethicone copolyols and/or alkyldimethicone copolyols,
 - (d) if desired also comprising one or more cationic, nonionic and/or anionic polymers, preferably in concentrations of from 0.01 to 10% by weight, preferably 0.1 to 5% by weight, particularly preferably 0.25 to 1% by weight.
2. The emulsion as claimed in claim 1, wherein the interface-active substance chosen is cetyldimethicone copolyol.
3. The emulsion as claimed in claim 1, wherein the interface-active substance chosen is laurylmethicone copolyol.
4. The emulsion as claimed in claim 1, wherein the total amount of alkylmethicone copolyols and/or alkyldimethicone copolyols is chosen from the range 0.075 – 7.5% by weight, preferably 0.1-5.0% by weight, in particular 1.0 – 3.0% by weight, based on the total weight of the preparations.

09/693,161

5. The emulsion as claimed in claim 1, wherein the oil phase consists of at least 50% by weight, preferably more than 80% by weight, of at least one substance chosen from the group consisting of isohexadecane, isoeicosane, octyl palmitate, isopropyl stearate, octyl cocoate, C₁₂₋₁₅-alkyl benzoate, dicaprylyl ether, neopentyl glycol diheptanoate, propylene glycol dicaprylate/dicaprate, cyclomethicone isopropyl palmitate, dibutyl adipate, isodecyl neopentanoate, dicaprylyl carbonate, dioctylcyclohexane, dihexyl carbonate, dihexyl ether, cycloparaffin, ethoxy diglycol oleate, ethoxy diglycol, butylene glycol caprylate/caprate, octyl isostearate, stearyl heptanoate, decyl cocoate, dimethyl isosorbide.

U.S. Application No. 09/428,421
Attorney Docket No. Beiersdorf 595.1-WCG
1120-Dr.Rs-hf

Filed: 10/28/99

For: Preparation of the W/O emulsion type with an increased water content, additionally comprising one or more alkylmethicone copolyols and/or alkyldimethicone copolyols, and cationic polymers

CLAIMS

- Claim 1. Water-in-oil emulsions comprising
- (a) a content of water and optionally water-soluble substances totaling at least 80% by weight, based on the total weight of the emulsions, and with a content of lipids, emulsifiers and lipophilic constituents totalling at most 20% by weight,
 - (b) at least one surface-active substance selected from the group consisting of alkylmethicone copolyols and alkyldimethicone copolyols,
 - (c) one or more lipid components which include the lipid phase of the emulsion,
 - (d) where the weight ratio of (b) to (c) is in the range of 0.10 to 0.25,
 - (e) and also comprising at least one cationic polymer.

Claim 2. Emulsions according to Claim 1, wherein the surface-active substance is cetyldimethicone copolyol.

Claim 3. Emulsions according to Claim 1, wherein the surface-active substance is laurylmethicon copolyol.

09/428, 421

Claim 4. Emulsions according to Claim 1, wherein the total amount of alkylmethicone copolyols, alkyltrimethicone copolyols or combination thereof is in the range of 0.075-7.5% by weight, based on the total weight of the preparations.

Claim 5. Emulsions according to Claim 1, comprising more than 85% by weight, of water and water-soluble substances, based on the total weight of the preparations.

Claim 6. Emulsions according to Claim 1, comprising from 0.01 to 10% of cationic polymers.

Claim 8. Emulsions according to Claim 1, wherein the cationic polymer(s) is/are selected from the group consisting of cationic cellulose derivatives, cationic starch, copolymers of diallylammonium salts and acrylamides, quaternized vinylpyrrolidone/vinylimidazole polymers, condensation products of polyglycols and amines, quaternized collagen polypeptides, quaternized wheat polypeptides, polyethyleneimine, cationic silicone polymers, copolymers of adipic acid with dimethylaminohydroxypropyldiethylenetriamine, copolymers of acrylic acid with dimethyldiallylammonium chloride, polyaminopolyamides, cationic chitin derivatives, cationic guar gum, quaternized ammonium salt polymers, and cationic biopolymers.